



Department of Energy
 Argonne Group - West
 P.O. Box 2528
 Idaho Falls, Idaho 83403-2528

May 12, 2000

TO: Administrative Record File for Operable Unit 9-04

**SUBJECT: DOCUMENTATION OF DOE/IDHW/EPA DECISION TO DISPOSE OF
 ECOLOGICAL RISK SOILS FROM OU 9-04 DITCHES**

The Central Facilities Area Industrial Waste Landfill has been selected as the disposal site for nonradioactive soils from selected ditches in Operable Unit 9-04 at Argonne National Laboratory-West. These soils are slightly contaminated with chromium, zinc and mercury. As these contaminants are relatively shallow (less than 4 feet deep), risk assessment calculations show that they pose an unacceptable risk to ecological receptors (small burrowing mammals). The soils do not pose a unacceptable human health risk and do not contain enough contamination to be hazardous waste regulated under the Resource Conservation and Recovery Act. The September 29, 1998 Record of Decision for Operable Unit 9-04 identified phytoremediation as the selected remedy for the ditches in Operable Unit 9-04. The ROD also identified excavation and disposal of the soils as a contingent remedy to be used if phytoremediation proved to be unsuitable or unsuccessful.

The DOE, State of Idaho, and EPA have agreed to implement the contingent remedy for portions of selected ditches in OU 9-04. This is because laboratory tests of phytoremediation conducted in late 1998 indicate that the selected ditch portions have levels of metals contamination that would require several decades to extract using cultivated plants. Using plants to reduce the contaminant concentrations to meet remediation goals is therefore not practical for these particular ditches. Other OU 9-04 ditches with contaminated soil and ecological risks will continue to use phytoremediation to extract their contaminants.

The Central Facilities Area (CFA) Landfill is located on the INEEL National Priority List Site, as is Argonne National Laboratory-West (OU 9-04). The active portion of the CFA landfill is considered a Non-Municipal Solid Waste Landfill and is operated in accordance with the requirements of 40 CFR 257 Subpart A. The selected ditch soil is categorized as "conditional waste" in the waste acceptance criteria for the CFA landfill and will be buried at or near the bottom of an active cell, which is 15-20 feet below grade. The soils must be buried more than four feet below grade to prevent any future contact with small burrowing mammals, thereby eliminating the ecological risk posed by the contaminants. Although it is located 15 miles from OU 9-04, the CFA landfill is considered to be an "onsite" disposal facility with regard to Operable Unit 9-04 and other INEEL clean up sites.

The DOE, State of Idaho, and EPA agree that the CFA Landfill should meet the following criteria before accepting nonhazardous soils from CERCLA remedial action sites such as OU 9-04:



1. The CFA landfill must be operated in compliance with applicable federal, state and local regulations governing non-RCRA regulated landfills.
2. If any environmentally significant releases have occurred from active or inactive waste units at the CFA landfill, they are addressed in a legally binding cleanup agreement.
3. The CFA landfill can permanently dispose of the OU 9-04 ditch soils at a depth of greater than four feet below grade.

The enclosed August 27, 1999 letter to M.J. Wolters from M.M. Holzmer requested that the CFA Landfill management describe how these criteria will be met. The CFA Landfill management responded that the landfill meets the criteria and that shipment of the OU 9-04 ditch soils could take place once Argonne National Laboratory personnel provide appropriate documentation that the soils meet the INEEL Waste Acceptance Criteria for conditional waste. (See enclosed letter from M.C. Tiernan to M.M. Holzmer, dated October 14, 1999.)

Based on the enclosed documentation, the DOE, Idaho Department of Health and Welfare, and EPA Region 10 concur that disposal of OU 9-04 ecological risk soils in the active portion of the CFA landfill is protective of human health and the environment.



W. Gregory Bass, DOE Manager,
Waste Area Group 9

Enclosures:
As stated

cc: A.D. Gabel, DOE-ARG, w/encls
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